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ABSTRACT

The present study confirms that it is possible to use readily available and easily analyzed data from the Mental Health Deomgraphic Profile (MHDE) to predict the demographic characteristics of persons seeking treatment in a community mental health center (CMHC). The procedure suggested is accessible to all federally funded CMHC's and does not require the use of the computer. In this procedure, 25 variables are selected from the MHDP and grouped into seven indicators of social class, ethnicity, family life style, residential life style, economic, education, and special needs. These indicators are then analyzed according to geographic areas to relate the actual utilization of services to the predicted need. An adequate patient recordkeeping system is needed, however, if population characteristics are to be compared to those of the persons served. Demographic data is seen as useful for service evaluation and planning. Tables, figures, and references are also presented to support the use of demographic data for the assessment of CMHC's. (Author/HLM)

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# SERVICE NEEDS AND SERVICE DELIVERY:

# AN ASSESSMENT TECHNIQUE FOR COMMUNITY MENTAL HEALTH CENTERS

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## INTRODUCTION

Although the Federal guidelines for the establishment of Community Mental Health Centers specifies the necessity for conducting needs assessment studies prior to the establishment of the Center, the opening of Centers around the United States has not been accompanied by the proliferation of efficient, useful techniques for accomplishing this end. Confronted by a critical need for information regarding a possible redelineation of catchment areas in Middlesex County in which our CMHC is located, and a stringent time limit, we were faced with the problem of rapidly developing a methodology for needs assessment and service delivery studies that could be implemented in a short period of time with a minimum of personnel and expense, and which also would be relevant to the planning task at hand.

Fortunately, we had been exploring the possible use of census data for a variety of evaluation studies and were familiar with work done by the NIMH Biometry Branch applying census data to the investigation of characteristics that have implications for community mental health. Armed with the NIMH work, census data in the form of a catchment area Mental Health Demographic Profile (information which is available to all CMHCs in the United States for their catchment areas) and a good patient record keeping system at our Center, we were able to develop a simple methodological approach to predict need for mental health services and to examine the actual utilization of services in relation to those predictions. Since the Data employed in this study is readily available to all CMHCs and is simple to analyze either manually or by computer, we felt that the approach might have more general applicability to other Centers and to a range of planning and assessment uses other than the single purpose for which it was originally developed.

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The authors would like to acknowledge the assistance of Irving Secemski without whose help the data processing and analysis would have been impossible.

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It should be noted that although the distribution of demographic characteristics in a community has received much attention as a means of anticipating or describing potential needs for mental health services, this approach remains a controversial one. In the absence of definitive research, further exploration of the potential usefulness of this orientation seems worth investigation.

## PROCEDURE

The Rutgers Community Mental Health Center in Central New Jersey was the locus of the present study. Since its opening in October of 1972, the Center has grown rapidly in staff, range of services, numbers of clients and a variety of other ways. The Center services Catchment Area 30, one of three catchment areas in Middlesex County. According to the 1970 Census, almost 236,000 persons reside in the catchment area which also includes Rutgers, the State University of New Jersey and Middlesex County Community College.

Nine towns make up the catchment area and are grouped into four sub-catchment areas for out-patient care. The sub-catchment areas are the responsibility of four Community Focus Teams. In addition, the College population is served primarily by a team of its own, the Student Team. The Center also provides in-patient and partial hospitalization, rehabilitation, acute psychiatric services and consultation and education to the entire catchment area.

### Needs Assessment Analysis

The first issue we addressed was that of needs assessment. For this purpose the Mental Health Demographic Profile System derived by NIMH from the 1970 U. S. Census was employed. The development of the Mental Health Demographic Profile System is based on the assumption that certain characteristics of a population (poverty, overcrowding, low income, etc.) are considered "high risk" in terms of needs for mental health services.

The catchment area profiles contain extensive data in several social areas: socio-economic status, ethnic composition, household composition, family structure, life style, condition of housing, and community instability. This source of demographic data was selected for a number of reasons: (a) it is readily accessible to all Community Mental Health Centers, providing information which otherwise would have to be gathered by large scale community surveys, (b) the data is in a form which allows for rapid manual analysis, (c) extensive work has been done by the NIMH Biometry Branch on the use of census data to estimate mental health needs (NIMH, 1972, 1974, 1975).

Twenty-five variables were selected from the Demographic Profile and were grouped into seven indicators.

[Table 1 about here]

The variables and indicators were chosen after much deliberation, careful reading of the literature and council with other centers doing similar work (especially Raritan Bay Community Mental Health Center). In spite of this labored approach there remains a certain element of arbitrariness in the choices since there is no definitive research substantiating all of the assumptions involved.

The difference between the indicators and variables approaches is somewhat similar to the distinction that is often made between the incidence and prevalence of disease. Areas ranking high on the variables are analogous to a situation where there is high incidence of an ailment (in this case severe stress-producing characteristics) whereas the areas ranking high on the indicators suggest high prevalence of stress in that region (none of the high ranking areas may be the most severe on any of the stress measures but there is a general chronic high level across stress measures).

Social Status Indicators. Linkages between social status and mental illness (see, for example, Dohrenwend, 1967 for a review and critique of this

area) have often been demonstrated. Sociologists commonly view social status as at least a function of economic, occupational and educational factors. "Certainly since Weber (1947, 53), sociologists have considered economic class (ability to consume goods and services), social class (prestige position), information (or education) status, ethnic status and social power as separate and distinct dimensions in describing the stratification system of western industrial society . . . (Redick and Goldsmith, 1971, p. 4). For these reasons, Economic, Education and Social Class were selected as indicators relevant to community needs assessment. These indicators were composed of selected 1970 Census variables assumed by NIMH to be valid indices of the three social status factors.

Ethnicity Indicator. To the extent that ethnicity is related to social status, it too may be viewed as a mental health needs indicator. Other evidence (see Dohrenwend, 1967 for review and commentary) suggests high symptom rates and higher treatment rates especially for Black and Puerto Rican minorities in the U. S. In addition, the NIMH group suggests that ethnic heterogeneity is an important factor in predicting need (Redick and Goldsmith, 1975, p. 7). For these reasons, we selected an Ethnicity indicator which encompassed the range of ethnic sub-populations in the area.

Family Life Style Indicator. Family Life Style was selected since absence of stable family systems is associated with community disorganization which has often been associated with mental health needs. As Redick and Goldsmith (1971) state, "Although non-family areas of a city obviously account for only a small portion of a subareas' total resident population, identification of these areas is important because of the concentration therein of individuals who have 'problems' (p. 5)."

Since the absence of husband and wife households appears to be a defining characteristic of non-family areas, the percent of husband and wife

households was chosen as the most significant variable for the Family Life Style indicator. The youth dependency ratio and aged dependency ratio were chosen because they both indicate special sub-groups within the family life cycle which tend to be higher in risk due to their place in the life cycle.

Residential Life Style Indicator. Neighborhood instability in terms of frequent turnover of residents and the existence of poor housing conditions is viewed as causally related to mental health needs. For example, Schorr (1963) states, "The following effects may spring from poor housing: a perception of one's self that leads to pessimism and passivity, stress to which the individual cannot adapt, poor health, and a state of dissatisfaction . . . (p. 31)." And as regards transience: "The ecological studies of Faris and Dunham . . . and of Freedman . . . directed attention to the possible existence of association between mobility characteristics of areas of a city and rates of mental disease of the population living in these areas (Redick and Goldsmith, 1971, p. 7)." The Residential Life Style indicator was chosen to subsume the factors of neighborhood transience and poor housing.

Special Needs Indicator. A seventh indicator, Special Needs, was chosen to subsume special populations with high potential need for services. Such a category is suggested by the NIMH reports (see for example, Redick and Goldsmith, 1971, p. 7). The variables comprising this indicator were selected because the subgroups involved have multiple stresses including economic, employment, dependency, and isolation.

If the demographic needs assessment procedure is valid, it would lead to the prediction that persons seeking mental health service are more likely to come from "high risk" areas and are more likely to have high risk characteristics than other persons in their geographic region.

The analysis of the catchment area was performed in relation to three geographic levels with each having different implications for planning:

(a) Total catchment area, (b) Sub-catchment areas served by specific RCMHC units, (c) Census tracts, the geographic subdivisions used by the Bureau of the Census for most of their data collections.

An illustration of the indicators approach will be given for the Economic Indicator. All the tracts in the Catchment Area were ranked on the five variables composing this indicator. These ranks were averaged and tracts falling in the top five ranks were identified as the tracts most at risk in relation to economic conditions.

A map of the entire catchment area with census tracts delineated was employed to show high risk areas. Each tract which appeared in the top five ranks on an indicator was highlighted on the map. Figure 1 is a map for the Economic Indicator. The map facilitates the location of high risk areas; in this case, all of the tracts are in New Brunswick. The use of such maps can assist planners in targetting areas which are likely to have particular problems.

[Figure 1 about here]

The identification and location of tracts which ranked in the top ten averaging across variables and across indicators was accomplished in a similar manner. Eight of the tracts identified in these two ways were the same. For Catchment Area 30, then, the prevalence (indicators) and incidence (variables) of stress characteristics have a high degree of geographic overlap.

The variables and indicators approach allows us to predict which parts of our service area were higher or lower in need but we had no standard against which to measure the extent to which the highs are high and the lows are low. The Demographic Profile from which the variables and indicators were obtained also provides information on the relative standing of each particular catchment area to all other catchmented areas in the U. S. This comparison was useful in the present study as a means of determining where

Catchment Area 30 stands as regards the variables we were using to predict need for mental health services.

The availability of this data for the entire country provided us with a standard to which comparisons with Catchment Area 30 could be made. The extent to which Catchment Area 30 presents a moderate picture on most of the variables is quite striking.

[Table 2 about here]

The area (for any of the variables) is not included in the top one third of all catchment areas in regard to risk, although it comes close on recent movers (undoubtedly due to the large college population) and percent of non-white non-black population (0.6 percent). The one other marked deviation in the overall pattern of a middle range area is for the variable Aged Dependency Ratio. Ninety-two percent of all catchment areas nationally have a higher percent of persons over 65 in relation to persons 18 to 64. This suggests that there is a proportionately small aging population in this area. In general then, Catchment Area 30 is somewhere in the middle range of all catchmented areas in the U. S. on the selected variables.

## Service Delivery Analysis

The second issue we addressed was that of relating actual utilization of service to predicted need. The Rutgers Community Mental Health Center service statistics were utilized for this purpose. Three levels of analysis were employed: a general level which looked at the service delivery to the entire catchment area in relation to the population characteristics; a more specific level which focused on services as delivered to major geographic subregions of the catchment area, that is, regions covered by community focus teams; and finally, a fine-grained analysis based on needs and services to the community as defined by census tracts. The service period chosen was July 1, 1974 to March 1, 1975.

The demographic variables selected to describe the center patients were chosen to have bearing on the indicators employed in the census needs assessment phase of the study and were determined by what information is contained in the Center data base. The following variables and their combinations were obtained: the total number of admissions, and for each patient: income, ethnicity, age, sex, educational level and referral source. Data for the entire Center and grouped by Sub-catchment areas was available for all admissions. Data grouped by census tract also was examined; however, for this analysis only a portion of the clients served during the time period was involved. We employed a sampling procedure because the clients had to be assigned to census tracts especially for this study since at that time census tract was not included in the basic patient record. Two different sampling procedures were employed in order to assure that the actual admission pattern by time and by service unit was represented. Each sample was compared to the total Center admission rate. Since it was found that the two potential

[Table 3 about here]

biases did not exist, the samples were combined. Only 13 names appeared in both samples or slightly under 3%. This was not considered a large enough overlap to cause distortions in the data.

While unit and time biases appeared not to be present, the sampling procedure does have at least two major sources of biases. The extent of the bias and the impact on the analysis can only be conjectured. First, the samples were drawn from service statistics available in April, 1975. Since that time, the Center's service statistics have been updated and clients admitted retroactively have been added. Consequently, the sample underrepresents the actual admission rate of the Center during this time period. The second bias is a result of the manner in which a 10% sample was obtained.

[Table 4 about here]

Since clients were listed alphabetically and every 10th admission selected, there is a bias against members of the same family entering the sample since family members are probably next to each other in terms of the alphabetic order. The consequence of this bias is that clients coming from the same geographic subregion are less likely to appear in the sample. That is, members of the same family probably live in the same census tract. If we predict that high stress will generate more clients and more client families there is an under-representation of those tracts caused by excluding family members from the sample.

Centerwide service data was compared to NIMH data regarding utilization of federally funded mental health centers (NIMH, 1974). Some of the data was relevant to evaluating the levels of activity at RCMHC since the information could provide a baseline or expected level of service against which to measure. There does not appear to be a commonly agreed upon level of activity or a generally accepted level of need for service in a community, consequently this empirical and relativistic standard seemed an appropriate one to use.

Table 5 presents a comparison for age and sex of client utilization

[Table 5 about here]

data for Rutgers CMHC and other federally funded mental health centers. RCMHC presents a fairly typical utilization pattern for these variables with two exceptions. A higher proportion of males under 15 (32.6% compared to 22.3%) is seen by Rutgers than the national average and a lower proportion of males between 45 and 64 (8.3% compared to 15.5%) is seen.

## RESULTS

In this section the results of the comparison of the needs assessment and service delivery analyses will be presented. With the exception of the ranking procedure used in looking at census tracts, analysis for the three levels were essentially the same. For this reason, we will present in detail

only the census tract analysis. In this analysis we will address ourselves to the issue of whether persons seeking and receiving treatment at RCMHC come from the high risk populations. For each set of tracts we asked the question: What characteristics should people from that set of tracts who seek mental health service have? and, Are they more likely to have these characteristics other than persons coming to the Center?

Ideally, in order to compare client characteristics with the census data assessment of high risk we should have used the exact same variables in both instances. In actuality, however, census data was far more extensive and covered a wider range of variables than the RCMHC client records were able to provide. Consequently, we chose from the information available for each client, that information which most closely resembled census data or that could be inferred to be strongly related to it. Two illustrative Indicators - Economic and Residential Life Style - were selected to demonstrate the differences in the analysis when variables related to the Indicator are matched or inferential.

Economic. This indicator is a composite of several variables related to income level. Due to the small sample it was considered sufficient merely to use the single variable: % of persons whose family income is under $150 per week. Given current definitions offered by the government and taking into account the median income level in the area, it was felt that an average weekly income for a family of under $150 could be considered a low income. We did not have family size information on our clients so we were unable to determine how many people needed to rely on the amount indicated. We assumed that an average of three or four persons were in the family and even if fewer were involved, $150 per week was not an unduly large sum to use as a dividing line.

Figure 2 presents the data for this variable. Only 8.3% of the persons

[Figure 2 about here]

from the high risk tracts make over $150. For the catchment area as a whole

as many as 49.7% earn more than this figure. The prediction that low income is more likely to be associated with persons from the high risk tracts than with persons from the Center as a whole was strongly confirmed.

Residential Life Style. Neither of the variables relevant to this indicator were available directly from Center records. Overcrowding and recent movers, therefore, were represented by characteristics which were thought to be related in some way. It was assumed that overcrowding is a condition related to low income. Low income was therefore selected to represent the variable.

There is an enormous difference between the income of persons coming from the high risk tracts and those seen at the Center from the entire catch-

[Figure 3 about here]

ment area. Only one person out of 30 from the high risk tracts or 3.3% had a family income of over $150; 96.7% made under $150 weekly. In contrast, clients from the entire area split almost evenly as regards income with 50.3% having an income under $150 per week and 49.7% having an income over $150. The prediction regarding income differential among persons from the high risk tracts compared to all of Catchment Area 30 was strongly confirmed.

A second variable was used to correspond to the census variable: Percent of persons who are recent movers. It was assumed that recent movers have not yet been integrated into the social network of the community and have a minimal knowledge of community resources and less familiarity with access routes to those resources. Consequently, the conjecture was made that recent movers are likely to have access to mental health services indirectly through agencies and institutions with which they have contact more readily, such as schools, welfare, churches and the like. We predicted, therefore, that recent movers were more likely to be referred to RCMHC by agencies, etc. than they would be to come to the Center directly or through the social network of their community. Thus, self, family and friends would appear less often as a referral source for such clients. Figure 4 presents the relevant data. For the entire catchment

[Figure 4 about here]

area, self, family and friends refer 46.5% of the cases while 53.5% of the cases are referred by other sources. For the high risk tracts only 35.5% of the cases are self or social network referrals and 64.5% are referred by other sources. There is a definite trend in the predicted direction.

Variables and Indicators - Top Ten. The tracts identified by these two analyses will be considered together. Since no specific demographic characteristics were predicted to be associated with these measures of high risk, it was hypothesized that the number of persons seeking service who came from these tracts would be at least proportional to their level in the population. We were hesitant to use this approach for a number of reasons. First, as previously discussed, it is believed that the samples have two biases which have an undetermined effect on them as regards adequate representation of the census tracts. Second, using the actual numbers in the 20% sample may introduce distortion since the total size of the sample is only 483 and the total number of tracts is 49. Each tract would by chance alone be represented by only nine cases. With such a small number, the opportunity for small variations making large differences is great. Consequently, the analyses of numbers of persons served is presented with caution.

Figure 5 presents the data for the ten tracts highest on selected census

[Figure 5 about here]

variables. The actual population from the 10 tracts, 32,856 persons, represents 13.9% of the total catchmented population. Persons seen from those tracts, 61 persons, represent 12.6% of the total patient population in the 20% sample. There is a small difference between the population percentage and that of the persons served. Whether or not this is a significant difference or merely a consequence of the various problems with using the sample in this way cannot be answered in this report. In any event, the percentages are quite close.

Figure 6 presents the data for the tracts ranking in the top ten for the

[Figure 6 about here]

indicators. Here the patients are 17.2% of the total served and the tract population is 17.3% of the total Catchment Area population. These proportions are almost exact and may be considered functionally equivalent. Again, whether it can be assumed that the proportion of persons served is accurate or would change markedly if the entire patient population was assigned to census tracts is not resolvable with the data available. It is tempting to speculate, however, that removing the sampling biases would lead to an increase in percentage of persons served from the high risk tracts as measured by the top ten variables and indicators.

Summary. The census tract level analysis revealed that persons from high risk tracts receiving service at RCMHC as determined by selected census variables and indicators have the high risk characteristics that are associated with their geographic sub-region. Sampling biases made it impossible to determine whether the prediction that the proportion of persons served from the top ten tracts on variables and indicators would be at least as large as the population in those tracts. Taking the entire census tract level analysis into account, it may be concluded that the major question: Are we serving the kind of person that we have identified as needing help? can be answered affirmatively.

## DISCUSSION

Within a relatively short time, two persons working very part-time were able to obtain and analyze data relevant to community needs assessment and compare this information to actual service delivery. The entire project is estimated to have taken about the equivalent of one month of full time work for one person. Much of the time was consumed in designing the approach, and so it is expected that a similar study could readily be completed with the same or fewer work days.

The primary reason for instigating the study centered on a planning issue for Middlesex County. One concern of the planners was whether our Center was able to handle a growing catchmented population, particularly that segment of the population which was likely to be at risk. Since a hospital in Catchment Area 30 was interested in opening its doors to that portion of the population residing closest to it, the question of high risk and adequacy of services was most relevant for the part of the Catchment Area near the hospital. Our analysis was able to shed some light on this matter. First, the study demonstrated that the higher risk populations did not in fact reside in the region at issue and further that the numbers and characteristics of persons served from that region meet the criteria of adequacy put forth: delivery rates nationally, and demographic indicators of need. In a climate where economic and political considerations could easily take precedence over community needs and service delivery, the availability of our data introduced an important empirical factor in the decision making process.

While the present study has considerable usefulness for mental health planning on the county level and also can be employed for catchment area and sub-catchment area assessment, it by no means presents a complete picture. The study was conducted in 1975 employing 1970 census data. As time moves on in this decade the accuracy of census data decreases and the applicability of any analyses of it for immediate planning situations decreases as well. In addition, many other factors enter into the needs assessment picture. For example: What resources are available to the community, e.g. family services, vocational training, school counselling and the like? What is the <u>experienced</u> need in the population for mental health care? and What prevention activities are being conducted by the mental health center or other community groups? Clearly, the most accurate approach would be a multifaceted one utilizing a variety of assessment techniques.

In order to implement a study like the one described it is essential to have easy access to well organized information regarding level of patient activity and patient characteristics. It would also facilitate the data analysis to include a census tract code in each record. This procedure is now employed at our Center. We were able to obtain tabulated data by computer since Rutgers CMHC employs a computerized record keeping system; however, a manual system would also serve the purpose. A number of coding and logging systems are available which allow for the possibility of cross tabulating data manually and could readily provide access to the information required. The demographic data for the Catchment Area was all processed manually from the Mental Health Demographic Profile.

Goldsmith and his co-workers have continued to modify their approach to the identification of social areas likely to need mental health services. A recent report, (NIMH, 1975) which became available after we began the study, presents rather sophisticated and flexible techniques for assessing need from census data. Those used in the present study follow their earlier approach which proved adequate for our purposes. The newer techniques, however, allow for increasingly specific predictions and could be used to advantage where the goal is to determine the need for highly focused programs. Hopefully, some of these approaches will be experimented with and elaborated in time for the 1980 Census.

From our review of the literature, it appears to us that this study is unusual in that it uses a needs assessment approach to measure adequacy of service delivery for the purposes of planning. This is in fact a program evaluation function and suggests that the analyses presented have applications to evaluation research. Periodic compilation of service delivery statistics and patient characteristics, for example, on a six month cycle, could be used

to compare against predicted need and/or defined program goals. Whether a program is moving toward its objectives or increased responsiveness to high need populations could be determined.

Absent in the literature are standards for service delivery in general and for high risk populations in particular. Studies comparing need and delivery across mental health centers and catchmented populations would be very useful for determining realistic criteria of adequacy. Such comparisons would also be of assistance in sorting out which demographic characteristics under what conditions are most highly related to mental health needs.

In spite of the many ifs, ands, and buts of the present study, we feel that such analyses may be of assistance to other mental health centers for planning and program evaluation. Hopefully, cross-center comparisons and other applications of the method will lead to its refinement and increased usefulness. Heeding the warning of Schulberg and Wechsler (1967), who state, "any experienced program planner . . . is aware of the many practical and political considerations constantly forcing him to disregard temporarily, or even abandon, an optimal rational approach and to resort instead to more expedient and feasible alternatives (389-390)," we feel that the approach described, while expedient and feasible, does not abandon rationality in its implementation.

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TABLE 1

Rutgers Community Mental Health Center Census Study
Indicators and Variables from the NIMH
Mental Health Demographic Profile

| Indicators | Variables |
|---|---|
| Family Life Style | % Husband-Wife Households |
| | Youth Dependency Ratio |
| | Aged Dependency Ratio |
| Ethnicity | % Household Population Black |
| | % Household Population Non-Black and Non-White |
| | % Persons Southern and Eastern European Heritage |
| | % Persons Spanish Heritage |
| Residential Life Style | % Overcrowded Persons |
| | % Recent Movers |
| Social Class | % Black Males in Lower Status Occupations |
| | % White Males in Lower Status Occupations |
| | % White Females in Lower Status Occupations |
| | % Black Females in Lower Status Occupations |
| Economic | % Families in Poverty |
| | % Population in Poverty |
| | Median Income for Whites |
| | Median Income for Blacks |
| | Upper Quartile Family Income |
| Education | % Persons Completed High School 18 years and over White |
| | % Persons Completed High School 18 years and over Black |
| | Median School Completed for Persons 25 and over |
| Special Needs | % Teenagers not in School |
| | % Aged Persons Living Alone in Poverty |
| | % Female Head of Household Living with Children in Poverty |
| | % Persons Disabled-Unable to Work |

TABLE 2

Relationship of Catchment Area 30 on Selected Variables to
All CMHC Catchment Areas
1970 Census Data

| | Median Values | | Percent of All Catchment Areas Having Value Indicative of More Risk than this Area |
|---|---|---|---|
| | Catchment Area 30 | All CMHC Catchment Areas | |
| **Family Life Style** | | | |
| % Husband-Wife Households | 75.9 | 72.8 | 57 |
| Youth Dependency Ratio | 60.3 | 60.5 | 55 |
| Aged Dependency Ratio | 11.0 | 16.4 | 92 |
| **Ethnicity** | | | |
| % Household Population Black | 7.2 | 5.0 | 47 |
| % Household Population Non-Black and Non-White | 0.6 | 0.5 | 35 |
| % Persons Southern and Eastern European Heritage | 19.4 | 15.7 | 49 |
| % Persons Spanish Heritage | 1.4 | 0.9 | 49 |
| **Residential Life Style** | | | |
| % Overcrowded | 2.3 | 2.0 | 47 |
| % Recent Movers | 19.1 | 18.2 | 39 |
| **Social Class** | | | |
| % Black Males in Lower Status Occupations | 61.9 | 61.9 | 53 |
| % Black Females in Lower Status Occupations | 60.0 | 62.6 | 59 |
| % White Males in Lower Status Occupations | 29.8 | 31.0 | 57 |
| % White Females in Lower Status Occupations | 29.5 | 30.5 | 59 |
| **Economic** | | | |
| % Families in Poverty | 4.1 | 5.4 | 65 |
| % Population in Poverty | 5.7 | 6.9 | 63 |
| Median Income for Whites | 12,311 | 11,254 | 61 |
| Median Income for Blacks | 9,085 | 7,980 | 65 |
| Upper Quartile Family Income | 17,405 | 15,312 | 59 |
| **Education** | | | |
| % Persons Completed High School, 18 years and Over, White | 62.7 | 56.6 | 71 |
| % Persons Completed High School, 18 Years and Over, Black | 43.8 | 38.4 | 63 |
| Median School Years Completed, Persons 25 and Over | 12.2 | 12.1 | 61 |
| **Special Needs** | | | |
| % Teenagers Not in School | 6.2 | 7.1 | 67 |
| % Aged Persons in Poverty | 17.4 | 18.5 | 55 |
| % Female Household Heads Living with Children in Poverty | 2.2 | 2.6 | 59 |
| % Persons Disabled and Unable to Work | 2.7 | 2.7 | 51 |

TABLE 3

Number of Admissions by Month for the Time and Unit Samples in Comparison to Total Center Admissions from July 1, 1974-March 1, 1975

| Sample Type / Month | Total Center | 10% Time Sample | 10% Unit Sample |
|---|---|---|---|
| July | 384 | 38 | 37 |
| August | 231 | 22 | 22 |
| September | 290 | 28 | 29 |
| October | 374 | 36 | 38 |
| November | 303 | 30 | 30 |
| December | 240 | 23 | 21 |
| January | 356 | 33 | 36 |
| February | 321 | 29 | 31 |
| March (1 day) | 1 | 0 | 0 |
| TOTAL | 2,500 | 239 | 244 |

Number of Admissions by Unit for the Time and Unt Samples in Comparison to Total Center Admissions from July 1, 1974-March 1, 1975

| Sample Type / Unit | Total Center | 10% Time Sample | 10% Unit Sample |
|---|---|---|---|
| 010 APS | 420 | 36 | 42 |
| 110 New Brunswick CFT | 365 | 33 | 35 |
| 120 Northern CFT | 603 | 61 | 59 |
| 130 Edison-Metuchen CFT | 467 | 44 | 45 |
| 140 Student CFT | 129 | 11 | 13 |
| 150 HP-NoB CFT | 225 | 25 | 22 |
| All Other | 291 | 29 | 28 |
| TOTAL | 2,500 | 239 | 244 |

TABLE 4

Hypothetical Example of Center
Statistics for July 1, 1974-March 1, 1975
Data for Hypothetical Unit 000

| 10% Sample | Name | Admission Date |
|---|---|---|
| Mrs. Sarah Aa | 1. Mrs. Sarah Aa | July 27, 1974 |
| | 2. Mr. Alred Aa | July 27, 1974 |
| | 3. Mr. Johnny Aa | July 27, 1974 |
| | 4. Ms. Sally Aa | July 27, 1974 |
| | 5. Mr. Horace Ac | February 7, 1975 |
| | 6. Mr. Charles Ag | October 12, 1974 |
| | 7. Ms. Carol Aw | January 11, 1975 |
| | 8. Mrs. Denise Ba | August 22, 1974 |
| | 9. Mr. Henry Ba | August 22, 1974 |
| | 10. Mr. Tony Ba | September 15, 1974 |
| Ms. Frieda Bo | 11. Ms. Frieda Bo | December 3, 1974 |

TABLE 5

Comparison of Service Utilization Rates by Age and Sex for Rutgers Community Mental Health Center July 1, 1974-March 1, 1975 and 1972 NIMH*
Data for all Federally Funded CMHCs

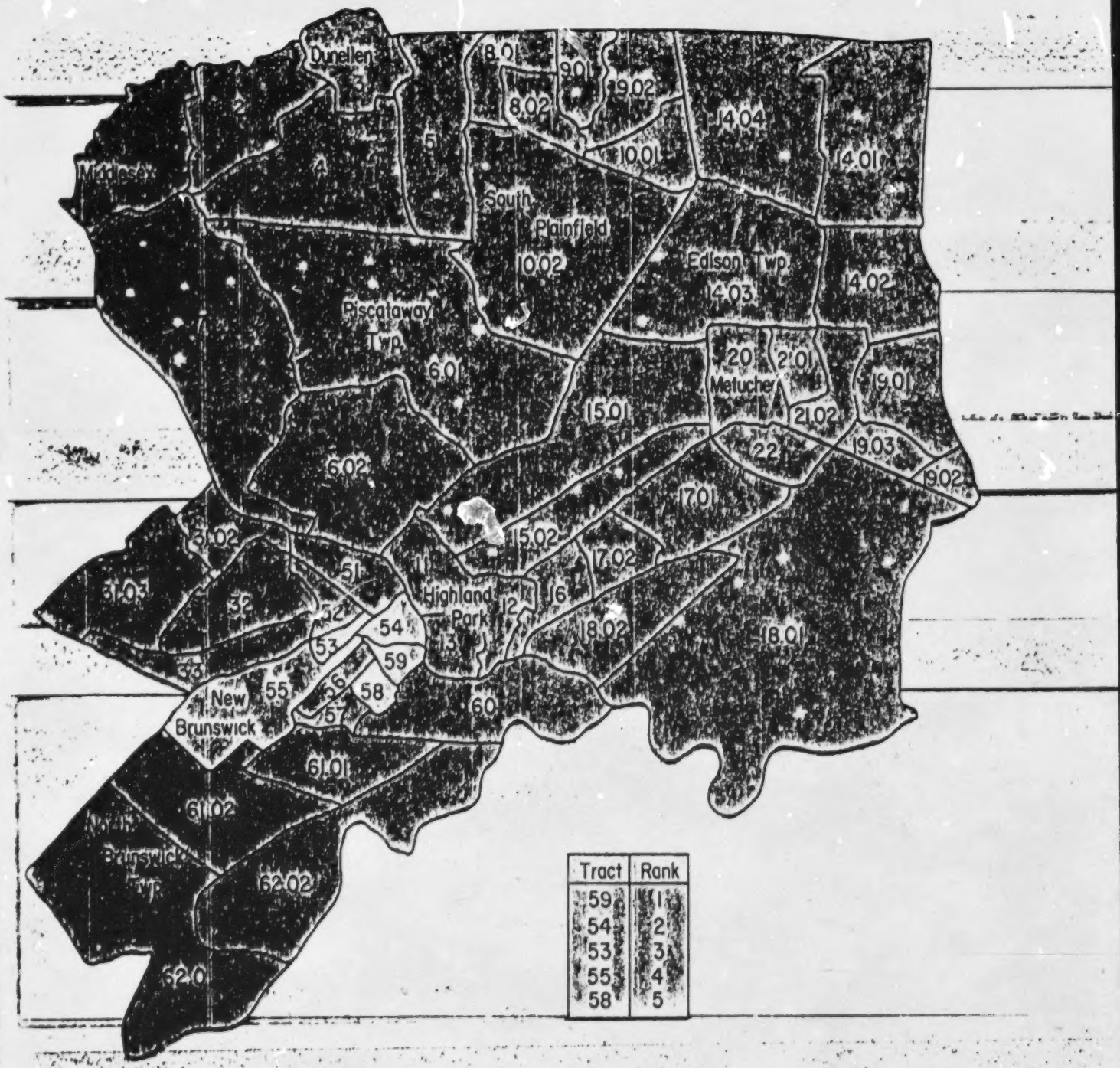
| AGE | TOTAL | MALE | FEMALE |
|---|---|---|---|
| NIMH Total | 511,706 | 247,292 | 264,414 |
| RCMHC Total | 2,355 | 1,083 | 1,272 |
| NIMH 15 | 17.2% | 22.3% | 12.5% |
| RCMHC 15 | 23.3% | 32.6% | 15.3% |
| NIMH 15-17 | 8.5% | 8.4% | 8.6% |
| RCMHC 15-17 | 5.2% | 5.3% | 5.0% |
| NIMH 18-24 | 18.3% | 17.6% | 19.0% |
| RCMHC 18-24 | 20.2% | 18.1% | 21.9% |
| NIMH 25-44 | 35.9% | 32.7% | 38.8% |
| RCMHC 25-44 | 38.0% | 33.1% | 42.1% |
| NIMH 45-64 | 16.2% | 15.5% | 16.9% |
| RCMHC 45-64 | 11.0% | 8.3% | 13.3% |
| NIMH 65+ | 3.6% | 3.4% | 4.2% |
| RCMHC 65+ | 2.3% | 2.4% | 2.3% |

* Provisional Data on Federally Funded Community Mental Health Centers, 1972-73, p. 37. Prepared by: Survey and Reports Branch Division of Biometry National Institute of Mental Health, ADAMHA, Rockville, Maryland, April 1974.

FIGURE 1

# ECONOMIC INDICATOR

## Catchment Area 30




| Tract | Rank |
|---|---|
| 59 | 1 |
| 54 | 2 |
| 53 | 3 |
| 55 | 4 |
| 58 | 5 |

FIGURE 2

| | ECONOMIC INDICATOR: Top Five Tracts on Indicator | ECONOMIC INDICATOR: Total Catchment Area (49 Tracts) |
|---|---|---|
| RCMHC cases Weekly Income under $150 July 1, 1974 — March 1, 1975 | 33 / 91.7% | 1050 / 50.3% |
| RCMHC cases Weekly Income over $150 July 1, 1974 — March 1, 1975 | 3 / 8.3% | 1039 / 49.7% |
| Total | 36 / 100% | 2089 / 100% |

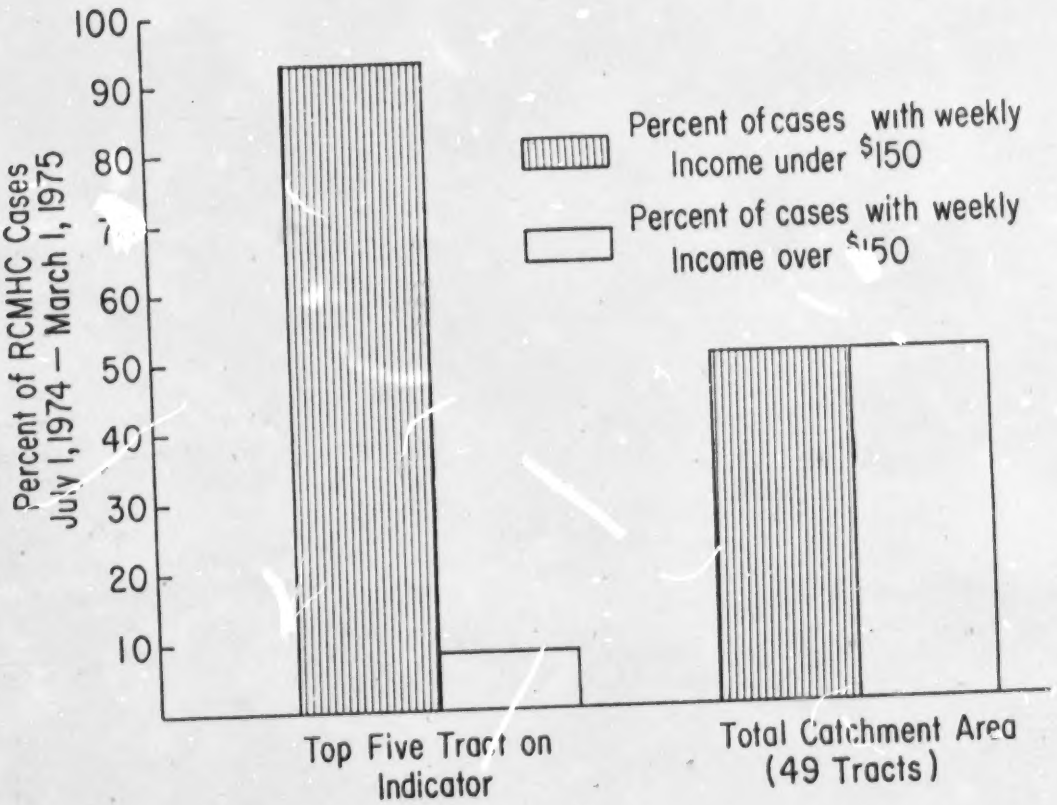


FIGURE 3

RESIDENTIAL LIFE STYLE INDICATOR
Income

| | Top Five Tracts on Indicator | Total Catchment Area (49 Tracts) |
|---|---|---|
| RCMHC cases Weekly Income under $150 July 1, 1974 – March 1, 1975 | 29 / 96.7% | 1050 / 50.3% |
| RCMHC cases Weekly Income over $150 July 1, 1974 – March 1, 1975 | 1 / 3.3% | 1039 / 49.7% |
| Total | 30 / 100% | 2089 / 100% |

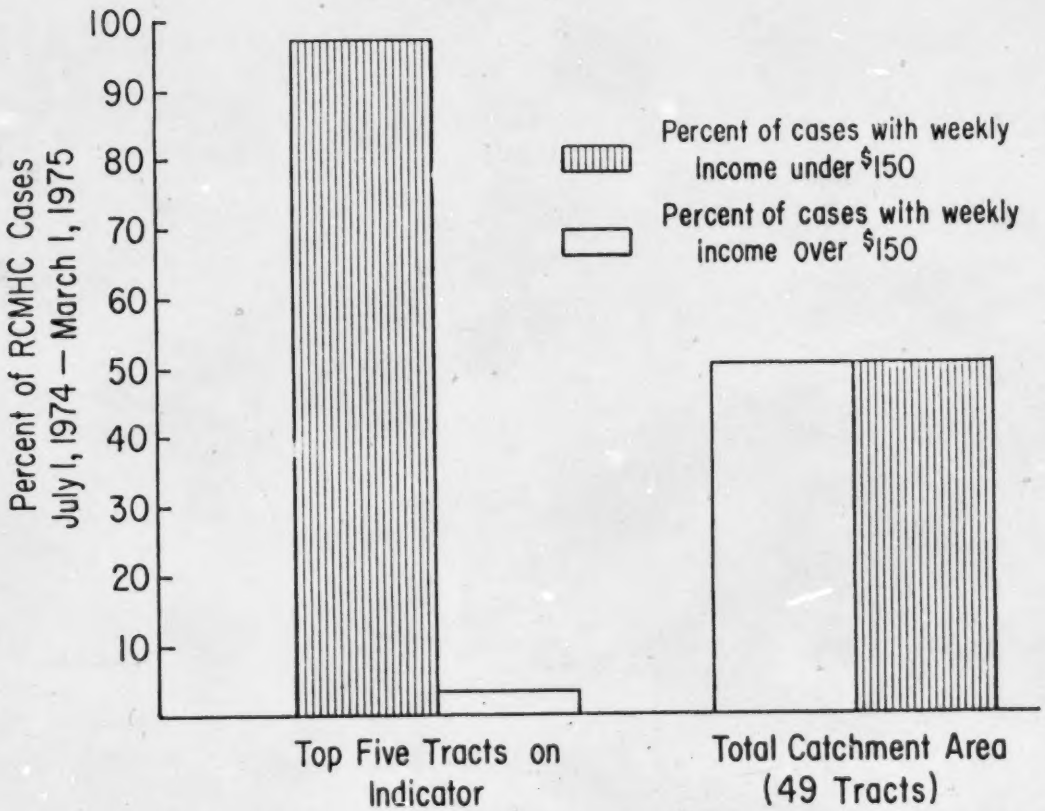


FIGURE 4

RESIDENTIAL LIFE STYLE INDICATOR
Referral Source

| | Top Five Tracts on Indicator | Total Catchment Area (49 Tracts) |
|---|---|---|
| RCMHC cases Referred by self, family, friends July 1, 1974 – March 1, 1975 | 11 / 35.5% | 1068 / 46.5% |
| RCMHC cases Referred by Other July 1, 1974 – March 1, 1975 | 20 / 64.5% | 1229 / 53.5% |
| Total | 31 / 100% | 2297 / 100 % |

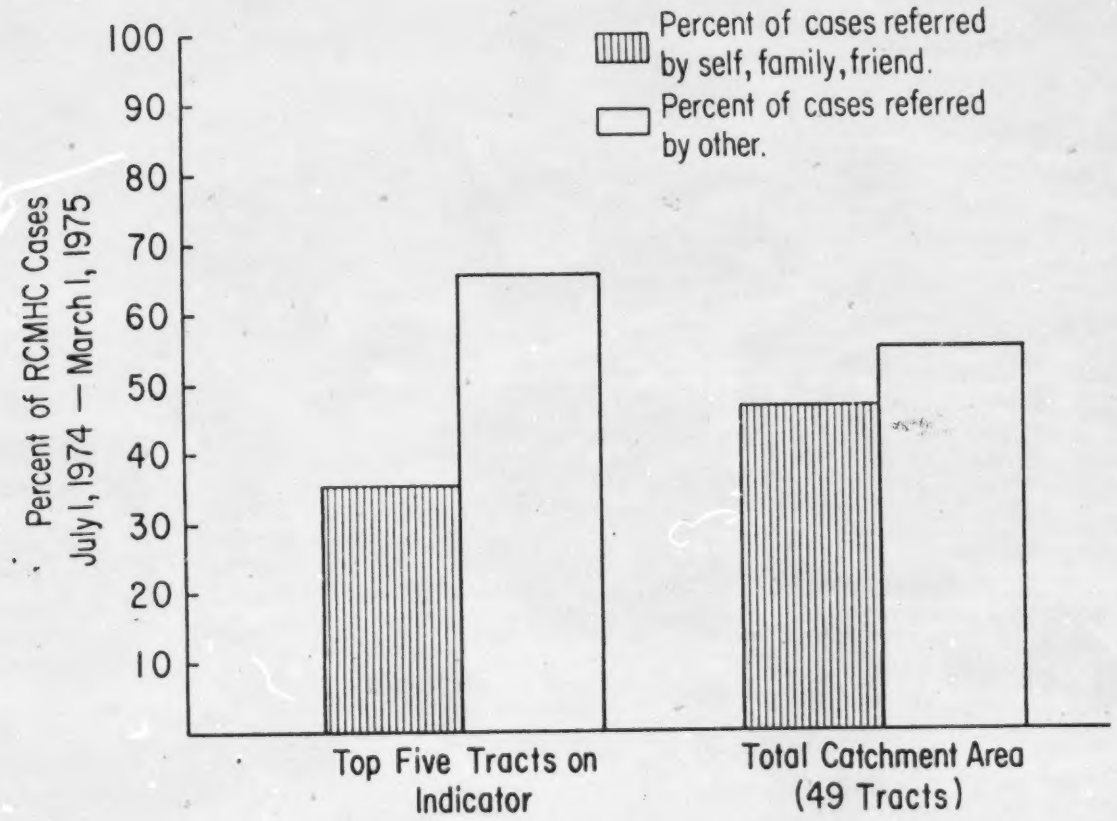


FIGURE 5

Admission Rates for the 20 Percent Sample
Ten Tracts Ranking Highest in Problem
Severity on Selected Census Variables

| | Admission Rate RCMHC Data 7/1/74 - 3/1/75 | Population 1970 Census Data |
|---|---|---|
| Tracts Ranking 1-10 | 61 / 12.6% | 32,856 / 13.9% |
| Tracts Ranking 11-49 | 422 / 87.4% | 202,926 / 86.1% |
| Total | 483 / 100% | 235,782 / 100% |

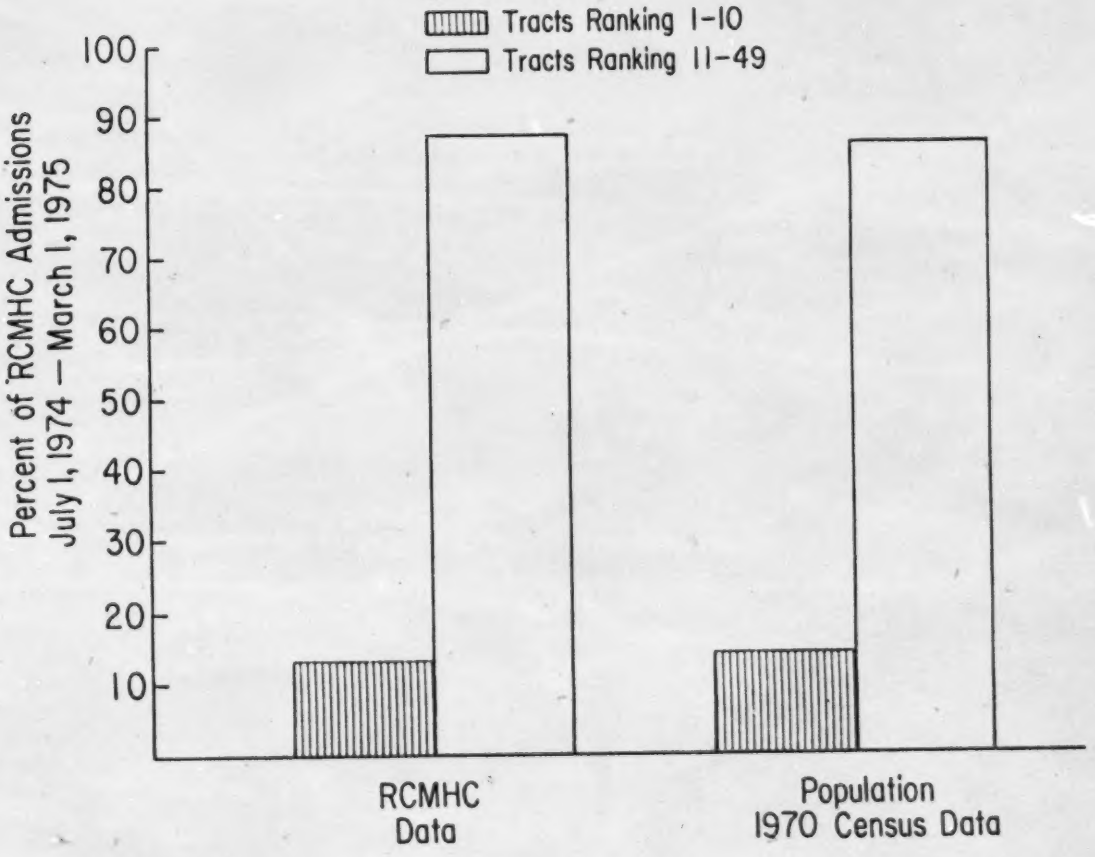


FIGURE 6

Admission Rates for the 20 Percent Sample
Ten Tracts Ranking Highest in Problem Severity
On Selected Census Indicators

| | Admission Rate RCMHC Data 7/1/74-3/1/75 | Population 1970 Census Data |
|---|---|---|
| Tracts Ranking 1-10 | 83 / 17.2 % | 40,871 / 17.3 % |
| Tracts Ranking 11-49 | 400 / 82.8 % | 194,911 / 82.77% |
| Total | 483 / 100 % | 235,782 / 100 % |